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CDS I.T.3322

Sci

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CDS I.T.3321.

Sci

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Sci - Min/Met

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HB 4936

SLA 61-12327

Sci - Min/Met

13 Apr 61

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HB 4838

Sci - Min/Hiet

13 Apr 61

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HB 4839

Sci - Chem

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Sci - Mechanical, Industrial,  
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HB 5122

Sci - Engr  
Dec 61

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HB 5274

Sci - Min/Met  
Jun 62

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HB 5272

Boil - Min/Met  
Jun 62

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(243.2)

ORLT. 2433

Sci-M&M  
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HB 5257

Sci - Chem  
Dec 61

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Study on 5% Cr-1/2% Mo, 7% Cr-1/2% Mo, and 9%  
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HB 5216

Sci - Chem

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HB 5120

Sci - Min/Met

Jun 61

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BB 5273

Sci - Phys  
Dec 61

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Sci - Chem

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Sci - Min/Met  
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CDS I.T.3467

Sci

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Scj

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Sci - M/H, Engr  
Aug 63

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Sci - M/M  
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Sci - Engr

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Capped Rimmed Steel and Its Deep Drawing  
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Sci - M/M  
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Reduction of Iron Ores by a Reformed Mixed Gas  
Natural Gas and Carbon Dioxide, by R. Sato,  
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HB 5944

Sci-Materials & Metallurgy  
July 63

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HB 5017

SCI - MIN/MET  
AUG 62

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HB 5942

Sci-Materials & Metallurgy  
July 63

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On the Selective Reducibility of the Elements  
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Reducing Conditions in the Electric Smelting  
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HB 5947

Sci-M/M

Aug 63

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HB 5948

Sci-Materials & Metallurgy  
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Sci - Chem

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HB 5247

Sci

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HB 5097

Sci - Min/Mat

Apr 61

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HB 5096

Sci - Min/Met

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HB 5095

Sci - Chem

Apr 61

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On the Efficient Use of the Teeming Ladles  
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HB 5279

Sol - MEIn/Met  
Jun 62

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Treatment of Some Melts With Low Ultra-  
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HB 5217

Sci - Electron  
Dec 61.

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Relationship Between the Carbon Elimination  
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HB 5102

Sci - Chem  
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BISI 2779

Sci -  
PH - Japan  
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HB 5072

Sci - Chem

Apr 61

147, 432

Effect of Aluminum Nitride on Crack Sensi-  
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Steel, by Shigao Hasebe.

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HB 5556

Sci - Min/Met  
Apr 62

190, 713

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JAPANESE, par, Tetsu to Hagane, Vol XLVI, 1960,  
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HISI 3067  
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Sci - Phys  
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224, 235

Attack of Hydrogen on Oil Refinery Steels, by  
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*Iron and Steel*  
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Sci - Chem

Apr 61

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Mechanism of Longitudinal Cracking on Surface of  
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HB 5108

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Sci - Engr

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Mechanism of Internal Crack Formation in  
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Sci - Engr

Jan 62

178, 325

Change in Physical Properties During Tempering  
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CNEN 2241.

801 - M/M  
Feb 63

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JAPANESE, per, Tetsu to Hagané,  
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HB 5234

Sci - Engr, Min/Mat  
Jun 62

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Simose, Takaaki and others.  
ON THE REMOVAL OF ZINC IN DUST FROM AN  
OPEN HEARTH FURNACE BY CHLORINATING  
ROASTING. Pt. 2 of Research on the Treatment of the  
Iron Industry Dust. Jul 63 [6p] 3refs  
Order from SLA \$1.10      63-20071

Trans. of Tetsu to Hagane (Japan) 1961, v. 47, no. 3,  
p. 286-288.

DESCRIPTORS: \*Dusts, Iron industry, Open hearth  
furnaces, Separation, Calcium compounds, Chlorides,  
Magnesium compounds, Reduction (Chemistry),  
Charcoal, Smelting, \*Zinc compounds.

An experiment was performed to remove zinc in open  
hearth furnace dust by chlorinating roasting with the use  
of calcium chloride and magnesium chloride. With the  
use of calcium chloride, the Zn removal increased  
from 17.0 to 60.7% as the roasting temperature in-  
(Metallurgy, TT, v. 10, no. 11)      (over)

63-20071

I. Simose, T.  
II. Title: Research...

Office of Technical Services

Expansion of the Basic Oxygen LD Plant  
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HB 5225

Sci - Min/Met  
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JAPANESE, per, Tetsu to Hagane, Vol XLVII,  
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HB 5226

Sci - Engr  
Dec 61

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On the Wear Pattern for the Linings in  
Basic Oxygen LD Furnaces, by H. Ohta,  
K. Sugita.

JAPANESE, per, Tetsu To Hagane, Vol XLVII,  
No 3, 1961, pp 343-345.

HB 5227

Sci - Eng  
Dec 61

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Production of Quality Low-Phosphorus,  
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HB 5228

Sci - Chem  
Dec 61

175.007



Production of Ship & Plate Steel in the  
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HB 5229

Sci - Engr

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Determination of the End Point in the LD  
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HB 5230

Sci - Chem  
Oct 61

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HD 5231

Sol - Engr  
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Aerodynamic Study of the Oxygen Top-Blown  
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HB 5232

Sci - Engr  
Dec 62

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HB 5233

Sol - Ingr  
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EFFECT OF SOME FACTORS ON PRIMARY COOLING,  
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HB 5019

SCI - MIN/MET  
AUG 62

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Extraction of Nonmetallic Inclusions ~~with~~ from  
Steel by Using an Ultrasonic Drill, by M. Nemura.

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HB 6063

Mat & Met

Oct 63  
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Loss of Nitrogen by Nitrogen-Containing  
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HB 5284

Sci - Chem

Jan 62

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Effect of Solution Treatment on High-Temperature  
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HB 5170

Sci

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Effect of Delta Ferrite on Properties of Chrome-  
Nickel Stainless Steels, by R. Nakagawa, Y. Ootoguro.

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HB 5173

OTS 61-25537

Sci

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HB 5291

Sci - Min/Met  
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Hot Ductility of High Chrome-Nickel Steels,  
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HE 5336

Sci - Min/Met  
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Fatigue Strength of High Chroma-Nickel  
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HE 5337

Sci - Min/Met  
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High-Temperature Properties of 316L  
Type Steels Melted in Nitrogen Under  
Increased Pressure, by M. Okamoto, et al.

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HB 5338

Sci. - Chem  
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Effect of Vanadium, Aluminum and Zirconium Upon  
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Otaguro. ---

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HB 5594

Sak - Min/Met  
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Automatic Control System of a Dwight-Lloyd Sintering Machine and Recent Trends Abroad, by K. Tsujihata, S. Miyagawa, et al.

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HB 5278

Sci-M/M

Aug 63

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On Widening the Applicability of Water-Cooled Basic-Oxygen LD Furnaces, by R. Sato, N. Tahata.

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HB 5356

Sci-M/M

Aug 63

54 3,492

On the Proportion of Hot Metal in the  
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PSH Furnace, by K. Watsabayashi, M. Takeda.

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HB 5599

Sci - Engr  
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Sci - Engr  
Nov 64

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JAPANESE, par, Itoaka to Hagane, Vol. XLVII,  
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HS 5461

Sci - Min/Met, Engz  
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BISI 5811

Sci-Mat  
Apr 69

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Analysis of Metal Yield From a Basic Oxygen [LD]  
Furnace, by T. Itaka, K. Mizui, et al,

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HB 5629

Sci-M/M  
Apr 63

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Effect of Columbium on Grain Size of Steel,  
by K. Marita, A. Miyamoto.

JAPANESE, per, Tetsu to Hagane,  
Vol XLVII, No 10, 1961, pp 1512-1514.

HB 5619

Sci - Min/Met  
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Identification of ROCKETTILE Incidents  
With the X-Ray Microanalyzer, by Iku  
Uchiyama.

JAPANESE, per, Tetsu To Hagane, Vol XLVII,  
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HB 5546

Sci - Min/Mnt  
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62-22967

Aoki, K. and others.  
EFFECT OF NONMETALLIC INCLUSIONS IN STEEL.  
PLATES ON THE ULTRASONIC SIGNAL PATTERN.  
Aug 62. 2000 words.  
Order from HB \$5.90 HB-5578

I. Aoki, K.  
II. HB-5578  
III. Brutcher, Henry.  
Altadena, Calif.

Trans. of Tetsu to Hagane (Japan) 1961, v. 47, no. 10  
[p. 1518-1520].

DESCRIPTORS: \*Ultrasonics, Sheets, \*Steel, Impuri-  
ties, Mechanical properties.

(Metallurgy--Ferrous Metals, TT, v. 9, no. 8)

Office of Technical Services

Studies of Semi-Killed Steel Ingots.  
III - Deoxidation Inclusions in Semi-killed  
Steel Ingots, by T. Kato, et al.  
JAPANESE, per, Tetsu-to-Hagane, Vol 48, No 2,  
1962, pp 117-123.  
\*BISI 7737

sci/ materials  
nov 69

Automation of a Dwight-Lloyd Type Sintering Furnace at  
Hirohata, by Y. Shimomura, M. Yasunaga.  
JAPANESE, per, Tetsu to Hagane, Vol 48, No 4, 1962,  
pp 363-365.  
HE 6021

FE-Jap  
Sci/M&M  
Apr 65

277,112

FLUIDIZED-BED REDUCTION OF IRON ORES WITH NATURAL  
GAS, BY M. TANAKA, M. OKUYAMA.

JAPANESE, PER, TETSU TO HAGANE, VOL XLVIII,  
NO 4, 1962, PP 418, 419.

HB 5684

SCI - MIN/MET  
OCT 62

2128,084

Kumli, Kazuo and others.  
ON THE REMOVAL OF ZINC IN DUST FROM AN -  
OPEN HEARTH FURNACE BY REDUCING EVAPORA-  
TION. Pt. 3 of Research on the Treatment of the Iron  
Industry Dust. Jul 63 [6p] 6refs  
Order from SLA \$1.10 63-20072

Trans. of Tetsu to Hagane (Japan) 1962, v. 48, no. 4,  
p. 452-453.

DESCRIPTORS: "Dusts, Iron industry, "Zinc com-  
pounds, Oxides, Separation, Open hearth furnaces,  
Evaporation, Reduction (Chemistry), Charcoal.

As a method of Zn removal from the open hearth  
furnace dust, charcoal was used as a reducing agent.  
At a roast-temperature of 1200°C, with 10% charcoal,  
the Zn removal reached 77% and at the same time, the  
increase in reduction of Pb and amount of Fe was de-  
(Metallurgy, TT, v. 10, no. 11) (over)

63-20072

I. Kumli, K.  
II. Title: Research...

Office of Technical Services

Matsuura, Minoru and Kumli, Kazuo.  
PROCESS OF ZINC REMOVAL FROM OPEN HEARTH  
FURNACE DUST. Pt. 4 of Research on the Treatment  
of the Iron Industry Dust. Jul 63 [6p] 1 ref  
Order from SLA \$1.10

63-20070

Trans. of Tetsu to Hagane (Japan) 1962, v. 48, no. 4,  
p. 453-455.

DESCRIPTORS: \*Dusts, Iron industry, Open hearth  
furnaces, \*Zinc compounds, Oxides, Separation,  
Pellets, Coke, Rotary furnaces.

In this method of removing Zn from open hearth furnace  
dust, a product of semi-reduced Luppen of about 60%  
total iron (40% metallic Fe), Zn < 3.0% and its by-  
products (about 85% of zinc oxide) were obtained. This  
zinc oxide may be effectively utilized and therefore, it  
is well justified budget-wise. An important reason for  
(Metallurgy, TT, v. 10, no. 11)

(over)

63-20070

I. Matsuura, M.  
II. Kumli, K.  
III. Title: Research...

Office of Technical Services

Study of the Dephosphorization in the  
Basic Oxygen LD Furnace, by T.  
Kato, et al.

JAPANESE, per, Tetsu to Hagané,  
Vol XLVIII, No 4, 1962, pp 464-467.

HB 5675

Sci - Engt  
Dec 62

217,433

On the Control of the Steel Bath  
Temperatures in the Tobata (Japan)  
Basic LD Oxygen Furnaces, by  
Y. Shimogo, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 48,  
No 4, 1962, pp 467-468.  
HB 5705

FE-Japan  
Sci/HQ31  
Jun 65

280,979



ON THE EFFECT OF FLUORSPAR IN THE BASIC OXYGEN LD  
STEELMAKING PROCESS, BY S. WATANABE, ET AL.

JAPANESE, PER, TETSU TO HAGANE, VOL. XLVIII, NO 4,  
1962, PP 468-470.

HB 5676

SCI - MIN/MET, ENGR  
OCT 62

212,089

On the Production of Weldable High-Tensile Steel (Wal-Ten), by the Basic Oxygen LD Process, by K. Wakabayashi, M. Takada.

JAPANESE, per, Tetsu to Hagané, Vol XLVIII, No 4, 1962, pp 470-471.

HB 5678

Sol - Min/Met  
Dec 62

217,456

Performance of Tar-Bonded Magnesite Brick  
Linings of the Asagasaki Basic Oxygen Furnace,  
by Y. Aoyama, H. Utsui, A. Matsunaga.

JAPANESE per, Tetsu to Hagane, Vol XLVIII,  
No 4, 1962, pp 472, 473.

HB 5677

Sci-Min/Met  
Jan 63

219,932

Effect of Zirconium on Austenitic Grain Size  
in Iron and Steel, by A. Adachi, K. Misukawa.  
JAPANESE, per, Tetsu to Hagane, Vol 48,  
Apr 1962, pp 663-667.  
BSI 4963

314,491

Sci - Methods and Equipment  
Dec 66

On the Equilibrium Relations Between Iron and  
Exothermic Atmospheres Converted From Propane,  
by K. Nagasaki, N. Komuro.  
JAPANESE, per, Tetsu to Haganne, Vol XLVIII,  
No 10, 1962, pp 1569-1574.  
BISI 3531

Sci - M/M  
Nov 64

268,681

Improved Open-hearth Refractories and Their Consumption When Injecting Oxygen, by K. Misawa, T. Yamaguchi, et al.

JAPANESE, per, Tetsu to Hagane, Vol XLVIII, No 11, 1962, pp 1322-1324.

HB 6146

Sci - M/M  
Apr 64

255,969

Layout and Operation of the Second  
Basic Oxygen LD Plant at Tobata (Japan),  
by T. Ikeda, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 48,  
No 11, 1962, pp 1353-1354.  
LIB 5770

IE-Japan  
Sci/MIME  
Jun 65

280,963

Use of Cold Pig Iron in the Basic  
Oxygen (LD) Furnace, by T. Koide, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 48  
No 11, 1962, pp 1362-1363,  
HB 5765

FE-Japan  
Sci/MGM  
Jun 65

280,978



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Service Tests on Steel-Tearing Nozzles of Special Design, by Y. Koike, et al.

JAPANESE, per, Tetsu to Hagane, Vol XL, No 4, 1962, pp 477-478.

HB 5711

Sci-Min/Met  
Jan 63

219,997

Detection of Flaws in Steel Sheet by Ultra-  
sonics, by I. Tajiri, S. Sekino, et al.

JAPANESE, per, Tetsu to Hagane, Vol XLVIII,  
No 4, 1962, pp 515-517.

HB 5761

Sci-Materials & Metallurgy  
July 63

235,791

Rapid Determination of Composition of (Steelmaking)  
Slags by Spectro-chemical Analysis, by Y. Abe, et al.,  
JAPANESE, per, <sup>12</sup>Tetsu To Hagane, Vol XLVIII, No 11, 1962,  
pp 536-38.

HB 6058.

Mat 63  
Oct 63  
6058

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Machinability of Selenium-Alloyed Free-Cutting  
Stainless Steel, by T. Ito.

JAPANESE, per, Tetsu To Hanape, Vol XLVIII, No 4, 1964  
pp 644-45.

RD 5951

Mat & Met  
Oct 63

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